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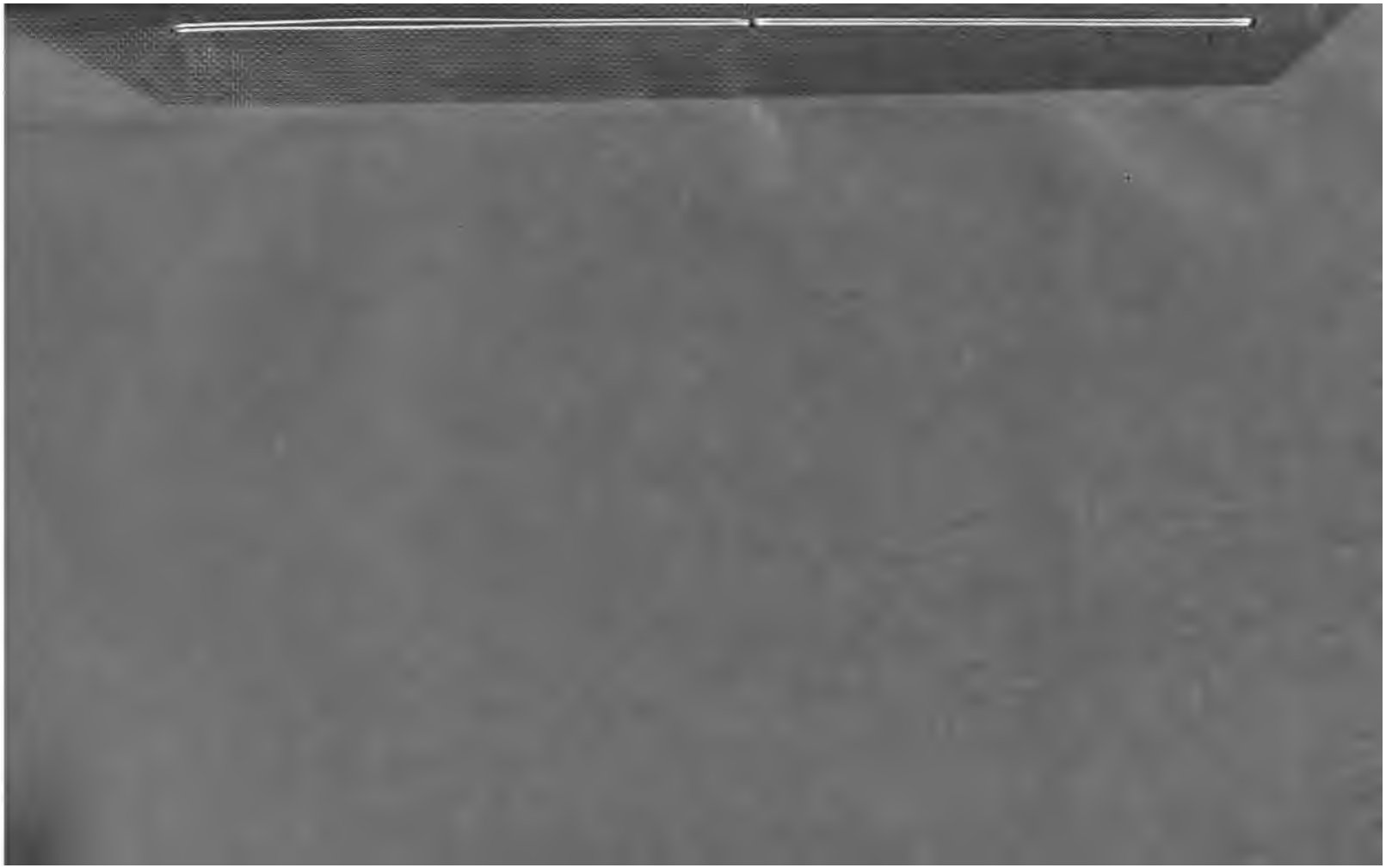

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MICHIGAN SCHOOLMASTERS' CLUB.

PROCEEDINGS OF THE THIRTY-FIRST MEETING, HELD AT ANN ARBOR, NOVEMBER 25–26, 1898.

SECRETARY'S MINUTES.

SESSION OF FRIDAY AFTERNOON.

The club assembled in the auditorium of the Ann Arbor School of Music and was called to order at 2:15 by President Warriner.

D. W. Springer of Ann Arbor was introduced and read a paper entitled, Commercial Courses in the High School. The discussion was opened by Carl C. Marshall, Battle Creek, editor of *Learning by Doing*; and was continued by Principal S. O. Hartwell, Kalamazoo; Superintendent M. R. Parmelee, Charlotte; Superintendent J. F. Rieman, Monroe; Professor B. A. Hinsdale, Ann Arbor; and Superintendent L. S. Norton, Jackson. The points especially emphasized in the general discussion were the length of the commercial course, the desirability of making it as thorough as the other courses of the high school, the modern languages demanded by the times, and the utilitarian value of commercial education.

Owing to the unavoidable detention of Superintendent David MacKenzie, the presentation of his paper was postponed, and Superintendent W. C. Skinner, of the Toledo Manual Training School, was called upon to discuss Manual Training in the High School. The subject aroused an animated discussion in which George Carman, principal of Lewis Institute, Chicago, Professor B. A. Hinsdale, C. C. Marshall, E. C. Goddard of the University, and others took part.

SESSION OF FRIDAY EVENING.

The address of the evening was made by Professor B. A. Hinsdale of the University of Michigan, who took for his subject, The End of Education: It it Knowledge, Development, or Social Adaptation? The paper was discussed at some length by Professor H. C. Adams of the University of Michigan, after which the members of the club and their friends met one another in an informal way.

SESSION OF SATURDAY MORNING.

The first paper of the morning was read by R. G. Boone, president of the Michigan State Normal College, upon the subject, The Professional Training of High School Teachers. The discussion was opened by A. J. Volland, principal of the central high school, Grand Rapids. President James B. Angell of the University, and Professor B. L. D'Ooge of the State Normal College expressed their views upon the subject.

The business session was opened with a discussion of the Club's relation to the *School Review*. Dissatisfaction seemed to be felt with regard to the present method of publishing the proceedings, owing to the expense and delay. Treasurer L. S. Norton made a statement of the financial condition of the Club. A letter from H. R. Pattengill, editor of the *Moderator*, was

read by the secretary, in which an offer was made to publish promptly all proceedings of the Club in either one or two issues and to supply these to members at ten cents a copy. It was moved by Professor B. A. Hinsdale and supported by Superintendent H. M. Slauson, that the question of publication be referred to the Executive Committee, with power, and that for the consideration of the question Professor F. N. Scott be added to the Committee. After some discussion the motion carried. It was moved by Professor J. O. Reed, Principal A. J. Volland supporting, that the one dollar fee be returned to; and this motion was carried.

Through Professor B. L. D'Ooge and President R. G. Boone an invitation was extended to the Club to hold its spring meeting with the State Normal College, at Ypsilanti. Moved by Superintendent J. F. Rieman and supported by Superintendent M. R. Parmelee, that the invitation be accepted. An amendment was offered by Professor J. O. Reed, supported by Superintendent H. M. Slauson, referring the place of meeting to the Executive Committee. Principal A. J. Volland moved that the matter be decided by the Club itself, and that the amendment be tabled. This motion was seconded by Professor E. O. Lyman and was carried. The original motion that the spring meeting be held in Ypsilanti was then put and carried.

After a few minutes intermission Superintendent David MacKenzie, Muskegon, read a paper entitled, Manual Training in the High School. The Round Table discussions followed under the leaders: Principal G. W. Peavy of Flint, Literary and Debating Societies; Principal C. E. Holmes of Lansing, Athletics; Principal J. H. Harris of Bay City, Marking Systems and Grades of Diplomas; Principal W. D. Baker of Battle Creek, Rhetorical Exercises.

The Club was adjourned by the President at one o'clock Saturday, November 26. The attendance upon the various sessions ranged from 75 to 125.

W. H. SHERZER, Secretary.

PAPERS AND DISCUSSIONS.

THE END OF EDUCATION: IS IT KNOWLEDGE, MENTAL DEVELOPMENT, OR SOCIAL ADAPTATION?

ABSTRACT OF A PAPER READ BY PROFESSOR B. A. HINSDALE, UNIVERSITY OF MICHIGAN.

For three hundred years at least, there have been two unmistakable tendencies in educational theory and practice. Some teachers seek to furnish the intellect of the student with a store of positive knowledge, while others wish to develop and improve the intelligence itself. The one class, to appropriate M. Compayré's words, are occupied only with the instruction which takes place through what is without, through an extended erudition, through an accumulation of knowledges; the other class conceive instruction as taking place, as it were, through what is within, through the development of the internal qualities of precision and measure. These two tendencies the French author calls the objective and the subjective pedagogies, and associates them with the names of Lord Bacon and Descartes. They are very natural tendencies, and are emphasized by somewhat different classes of persons. Teachers, and the public generally, tend to emphasize positive attainments, philosophers and teachers of the classical languages and literatures tend rather to emphasize mental development. But the objective and subjective pedagogists

do not exhaust the subject. A third group of men find the end of education in its uses. There is the old story of Agesilaus, King of Sparta, who, caring nothing for knowledge as such, or for mental cultivation, said a boy should be taught the things that would be useful to him when he became a man. This theory, which is extremely congenial to some minds, has a lower and a higher form. The lower form is on a level with the bread-and-butter sciences, the higher form clothes itself in the language of philosophy, especially, perhaps one may say, of sociology. This third tendency leads to what may be called the teleological pedagogy. It finds the end of education in character and activity. The teacher should strive, so it is held, not primarily to furnish the pupil with knowledge or to develop his mind, but primarily to adjust him to the world or to the civilization in the midst of which he lives. This is the conception of education expressed by Herbert Spencer in the well-known definition found in his work on education,—"to prepare us for complete living is the function which education has to discharge, and the only rational mode of judging any educational course is to judge in what degree it discharges such function." The Committee of Fifteen that drew up the report on the Correlation of Studies in Elementary Schools, committed itself unreservedly to the teleological pedagogy.

Having defined these different tendencies of thought, Professor Hinsdale proceeded to discuss their relations, reaching in general the conclusion that the real question at issue is more one of emphasis than of positive difference. If knowledge is acquired in the best way, it will lead to mental development. On the other hand, mental development can not be obtained except through the attainment of knowledge. Neither one is an exact measure of the other, and neither one can be separated from the other. What is more, if the knowledge pursued is the best knowledge, and if the mind is developed in the best way, what better preparation for the duties of practical life can the child have? In other words, any one of the three ends set forth, if intelligently pursued, will involve both the others. Practically, then, the question is not so important as it may be made to appear.

Professor Hinsdale closed with quoting a brief speech that he had contributed to a discussion of the general subject two or three years before at one of the annual meetings of the Superintendents' Section of the National Educational Association, as follows:

"The lines of battle are drawn here this morning much as they have been drawn on previous fields of discussion. It is contended, on the one hand, that the proper point of view from which to survey the child's education is that of the available culture-material. It is insisted, on the other hand, that such point is the nature of the child. Participants in the discussion emphasize respectively environment and psychology. 'The course of study is of prime importance,' some say; 'psychological analysis of the child mind is what we want,' others reply. I cannot think the issue is so sharp or so important as the contestants appear to think.

"Education is the growth, expansion, or development of the mind through its own activity. Hence the mind is a fundamental fact to be considered. But the mind acts, and so grows, only when brought into relation with objects capable of stimulating it to activity, and so to growth. Hence objects of knowledge—what we may call culture-material or education-stuff—is also a fundamental fact in education. The process that we call education may therefore be examined on either side, viz.: the nature to be educated and the material or stuff to be used in educating it. There is an adaptation of the

external world to the nature and needs of the mind; there is an equal adaptation of the human development, or of civilization, to the same nature and needs. To deny this last proposition is to deny that the civilizations of the foremost nations are psychological; it is rather to affirm that they are not genuine manifestations of man's nature but are parasitic growths. Hence the two points of view are correlatives, and to omit either one is to commit a mistake. Nearly the whole field, if not all of it, can be seen from either point of observation. If Dr. Harris and Dr. De Garmo were to sit down at a table and draw up a course of study they would not materially disagree, save, perhaps, in the reasons that they might assign for their respective recommendations. For instance, Dr. Harris would urge the study of geography because it is forced upon the child by his environment; Dr. De Garmo would urge its study because it is adapted to the development of his mind. Neither one, I feel sure, would wish to deny the validity of the other's reason. Accordingly, I appear on the field in an irenical spirit, and plead not for a compromise but for a broader view."

THE PROFESSIONAL TRAINING OF HIGH SCHOOL TEACHERS.

BY PRESIDENT R. G. BOONE, MICHIGAN STATE NORMAL COLLEGE.

Mr. Nightingale of Chicago read a paper upon this subject before the Schoolmasters' Club, November 1895, which was published in Vol. IV of the *School Review*, page 129, March 1896. It was then called a "hackneyed subject," but described as one which must, in the interests of the schools and because of a lingering public sentiment, be perennially discussed. True, the question is one that has been discussed, not indeed from time immemorial, but throughout much of the professional life of the oldest teacher, perhaps, present. Ten years, however, will cover the more active and thoughtful and public discussion of the question. In Poole's Index, the leading current reference to periodical literature, no mention is made of either high school or secondary teachers as to their training prior to 1887. Most of the serious and more scholarly discussions of the questions have occurred within the last five years. The Cleveland Cumulative Index has, up to the present time, made no reference to the professional training of high school teachers; nor the American Library Index to General Literature.

The subject has however had abundant discussion, sometimes scattering, often unintelligent, in gatherings of school people; which has had its effect, in affording material for criticism and further discussion, in arousing not only the professional but the lay interest, in revealing both strength and weakness, unexpected in high school teaching, and in a slow but obvious adjustment of professional opinion upon the question.

The organization of the Department of Secondary Education in the National Association, dates, I think, from 1887. The interests of the high school and of other preparatory schools were given attention prior to that upon the general programme of the Association, or by the standing committee on higher education in the National Council. In 1891, at Toronto, Mr. Frank E. Plummer, who was president of the Secondary Section of the N. E. A., read a presidential address on the "Future High School," in a paragraph of which upon the high school teacher, he included among the characteristics demanded by the time, "a thorough understanding of the art of teaching."

Two years later, during the meeting at Chicago, Professor E. P. Hughes of Cambridge, England, read a paper upon "Professional Training for Teachers of Secondary Schools," and outlined the practice course followed by the Teachers' College. The year following, Mr. C. P. Lynch, referring to the editorial introduction by Dr. Harris to the Report of the Committee of Ten, that, "It has been agreed on all hands that the most defective part of our education is that of the secondary schools," characterized the deficiencies of high school work as arising from, (1) an inferiority of equipment, and (2) an inferiority of teaching ability.

What has appeared in the progress since 1894 is recent history, is quite as familiar to most of you as to the speaker, and need not be recounted here.

In the Report of the Committee of Ten, a single brief paragraph only is given to the qualifications of Secondary Teachers, aside from the references made to this by several of the conferences. From the wording of the introduction to the report, concerning the admitted need for more "highly trained" teachers for these schools, it is evident that what was in mind was that they should be more scholarly. The Conference on the Modern Foreign Languages averred that the worst obstacle to the progress of modern language teaching is the lack of properly equipped instructors. The conference on the physical sciences reported their conviction that it was yet impossible to provide suitable instruction in elementary science even, without specially trained students in science. But there is no indication there either in the text or the context that a science teacher has need for other qualifications than to be a scientist.

Of all the conferences, that upon history and political science only, gave deliverance to a clear conviction of the necessity of something more than a knowledge of history for efficient history teaching. They urged that the subject must be presented by teachers who not only have a fondness for historical study, but who have paid attention to effective methods of imparting instruction, as the same committee elsewhere phrases it "a knowledge of illuminating methods of teaching history."

In the Report of the Committee of Fifteen upon elementary schools and education far more space and attention were given to the qualifications and training of secondary teachers than in that of the Committee of Ten, which had reference technically to secondary schools; which only emphasizes the often reiterated statement that at that time the training of secondary teachers had not yet become a burning question. This later report urges that as one-sixth of the teaching body in the United States are secondary teachers or superintendents; and that as from the students of the high schools come our social and business leaders, the superintendents, village principals, and practically all of our elementary teachers, "secondary teachers should be trained even more carefully than elementary teachers are trained." And, in a very general way, a course of study is arranged and submitted for the training of such high school teachers.

Sixty years ago, in his famous Massachusetts Report for 1839, Horace Mann quoted from the just published Fifth Report of the Glasgow Educational Society's Normal Seminary as follows:

"There is perhaps no mistake so fatal to the proper education and training of youth as the practical error of imagining that because a man possesses knowledge therefore he will be able to communicate it. The knowledge of a Newton or a Bacon avails little with an improper mode of communicating it."

The really encouraging fact to the discussions of secondary teachers of

the past is the large and growing interest shown in questions touching the order and the distribution of the work, actual and comparative values of studies, the varying aims of education at successive stages of a child's life, the conditions of highest returns in study, and economy of effort on the part of both student and teacher. These, obviously, are not academic questions at all. One may be a scholar with all the dignities that pertain to vast learning and well-earned honors, and yet have given these matters little or no serious attention. Such questions have been often discussed and in both scholarly and helpful ways. The consideration of these could not long continue among serious minded men and women having the interests of secondary schools at heart, and the conviction *not* follow that their meanings will be really apparent to those only who have been trained to supplement their academic insights with these and similar pedagogical interpretations.

A long list of subjects might be selected from recent discussions touching secondary school work, generally professional, and very helpful. "Aims and Methods in the Study of Literature," "The American in History," "Reading for Teachers in the High School," "Tendencies of Secondary Science Teaching," "What Should the Modern Secondary School Aim to Accomplish?" "What Studies should Predominate in Secondary Schools?" "Comparison of American and European Secondary Schools," "German Methods in Secondary Schools," "Equipment of the High School Teacher in France, "Reform of Secondary Education in the United States," "Secondary Education in European States," "French and American Secondary School Programmes," "High School Programmes without Greek," "What Constitutes a High School?" "Order and Relation of Studies in High School Courses," "The School Curriculum in its Relation to Business Life," "Secondary Schools and Co-ordination of Studies," "Correlation of Science work in Secondary Schools," "The Curriculum of Small High Schools," "Values in Secondary Education," "The Principle and Practice of Election in High School Courses," "Tendencies in Secondary Education," "High School Work and Adolescence," and "Research as the Vital Spirit of Teaching." are secondary school questions, none of which bear directly upon the question under present consideration; but all of which through twenty-five years have made easier the way to a sound and liberal conception of the professional training of secondary teachers. For their intelligent treatment there are needed teachers who are familiar with the forces that make for civilization, the directing of them, and the conditions of social and personal thrift and vigor; the aims and conditions of individual maturing also, and the insights that make study inviting to the youth and promotive of the highest spiritual health; teachers who are leaders, conscious and purposeful, far-seeing, resourceful, students who know the way to student interests and know how to inspire others.

As a result of all this discussion, perhaps, I venture to think that the concensus of opinion may be fairly summarized as follows:

(1) In general, teaching should be prepared for as should any other practice involving scholarly ability.

(2) There is no less need for this special training to supplement scholarship among high school teachers, than among elementary teachers.

(3) The professional training for high school teachers should follow or accompany the later years of a fairly liberal general culture.

(4) What is meant by "professional training" comprises more than a study of educational doctrine or its history. There is implied both critical observations of good teaching, that is consciously and purposely good, and

teaching accompanied, followed by more or less frequent, and always expert criticism.

I. That school people and, more or less, the general public are questioning about the preparing of teachers in a professional way for the advanced and preparatory classes in secondary and collegiate schools, implies a somewhat widespread recognition not only of a possible need, but of the possibility of meeting that need. It seems scarcely to be required in this presence to argue further for the need. The very general interest in, and use of the high school, have dignified its work, and have led to a great multiplication of its exercises, to increased equipments and expenditures, and to the substitution of new and far less utilitarian aims than formerly. The more rational ends of elementary education discover their natural sequence in the humanizing and socializing and moralizing and culturing not less than the industrializing purposes of the high school. Better teachers are needed in the high schools to handle wisely the improved product of the elementary schools; as better teaching must soon be demanded in the colleges and universities, to harmonize with the more reasonable conceptions of the means and ends of education and teaching, in the better secondary schools. It is a wholesome sign that people are interested in the work and results of these schools; that they have strong opinions about them, and widely different opinions; that the discussion springs up anew perennially, begun now by laymen, and now by professionals; that occasionally there are found in each group some who are willing to listen to the other; concessions are made; very general and sometimes unimportant conclusions are accepted and formulated; and the sky is clearing. Teachers should comprehend the matter better than others. The right will be conceded when the claim has been justified. In the meantime there is a growing belief that the work of the high school is of an order that requires high art, and that some of the fundamentals of the art may be communicated and the principles that make it rational. Existing schools of pedagogy and the interests of the colleges and universities in the curicula and teaching and the product of these schools, are a pledge of the public's confidence that the teaching is worth improving and that a way may be found. Opinions differ as to the right way, or the best way, but both the way and clear vision will come with a well-conserved interest.

II. Let it be said then, speaking somewhat more in detail, but still broadly, that high school teachers have need, first of a sensible and comprehensive knowledge of the growth of the science they undertake to teach. That the mathematician, for example, who aspires to be a teacher also, has made himself familiar with the development of the several phases of his subject, the emphasis now put upon algebra or arithmetic, and again upon geometry, and why; the parts of each that have survived and those that have dropped out as factors in elementary and secondary education, and why; the sequence of topics and their respective values among different people and at different periods; the respect that has been, through the years, accorded the several parts of the subject, and the whole subject among others in the curriculum, argues a fitness for teaching mathematics that no breadth or depth of mathematical learning, as such, can guarantee. The best teaching of high school English today—either its grammar or literature—is weak in quality and narrow in scope, except the current possession be re-enforced by a strong perspective of its development. The teaching of either is undertaken with a double risk by one who knows no language but English and who sees in the literature of the past and in the current creations, no interests and purposes of the race strug-

gling for expression; groping, now in darkness, now in the dawn; now leading the life, now following haltingly and subdued. To fail in this insight is to fail in understanding the youth's slow maturing, and the concealed and often unintelligible aspirations and unequal appreciations of literature and the values of artistic and effective expression, by which he comes to an intelligent appreciation of their content, and a mastery of their forms. The same is not less, perhaps more true, of the evolution of the sciences, and of history as a science. With the ends of education what they are recognized to be, no one can handle any knowledge to much profit as a school instrument who is unfamiliar with its determining antecedents, and the conditions that have given it present form. Science as an instrument of training is not a fixed and unchanging factor, but mobile and becoming, virile and aggressive; and is a fruitful instrument to this end, only when so employed. Secondary teachers have need to be very familiar with the beginnings and important stages and present dynamics of their several subjects, and the social and professional and economic conditions that have furthered the development.

III. This implies that they habitually discriminate in their teaching between the present organization of this current science and its empirical order. There are dangerous extremes as well as wholesome truth in the dictum of Spencer that "the order of development of the faculties in the individual is the same as the order of development in the race;" with the implication that the subject matter which was suited to the race during primitive stages should be employed by teachers with children in corresponding stages of development. It does seem to be true, however, that the order of experience is vastly superior to the logical order as an instrument of education through the elementary phases of whatever subject. Below the university the empirical order is the effective order for teaching; though it is a quality of large scholarship to hold and use knowledge deductively. This may explain in part why it so often happens that great scholars teach badly. They fail to remember the stages in which they came to their now familiar convictions and wide knowledge. But this constitutes a professional view of one's subject, and the ability to adapt one's abundant knowledge of a science, whether more or less complete, to the needs of a mind growing in and by these experiences goes far to make one a teacher. The secondary teacher has need to know his subject in its making, and not hold it statically as so much possession. Scholarship includes the latter; it may or may not include the former. The professional training of the secondary teacher should include the latter in abundance, it must, to be effective, include the former.

IV. Again, secondary school teachers have need to know, somewhat familiarly, the stages and factors in the general history of culture, the conditions of improvement and deterioration, social and personal, and the success of attempts to use the various institutional means for education and training. Among the several nations and in different ages, what has succeeded and what failed? What of permanent value had each for us; and for western civilization? Under what social and personal virtues have people survived, and to what end? For it is that the social group, the institution and the large interests that conserve and further human achievement may survive to worthy ends, that all our teaching is done, mathematics and the sciences, technics, mechanics, and the formularies, not less than history and the train of the humanities. The teacher in secondary not less than elementary schools finds his instruction both liberalized and made specific, whatever be the branch taught, and he sees more clearly the way and the means by which the present civilization has been

achieved; among all the products—human and material, personal and public, what really has seemed worth while; what has justified itself, in the doing or the having; what educational and economic values our own experts may safely expect to attach to the traditional means and the customary devices. The increased acceptance of this view appears in (1) the larger and less wooden interests in historical studies, and in the wholesomeness of institutional life as related to the means and environments of culture; (2) the serious and scholarly attention given in recent years, to investigation into the origin and growth and influences of the universities, colleges and other superior institutions, including academies and the entire group of secondary schools; and (3) the very recent interest in tracing the beginnings and development and the increased employment of the present subjects of our secondary courses, as means of education.

Each of these has had frequent attention in recent years in very helpful papers and before this Club, or published in the technical and general periodicals of the day, showing an attempt to discover and properly organize the true work of the secondary school. From President Eliot's "Current Tendencies of Secondary Education," through a study of "Values in Secondary Education," "German Methods" in these schools, "The Differentiation of High Schools," "Self-Government," and "Electives" in high schools, and the relation of the secondary system to the parts above and below it, to the Report of the Committee of Ten and the voluminous literature that has followed it, there is revealed a rich field in historical and critical studies in secondary education whose cultivation must yield rich harvests to the intending teacher. Then there are the more detailed investigations in narrower lines—such as "English Work in High Schools," the "History of English-German Teaching," and the "Educational Value of English;" "Methods in Teaching Secondary Latin;" the "Educational Value of the Method of Science Teaching;" the "Educational and Industrial Value of Science;" "Natural Science in a Literary Education;" the "Humanistic Element in Science;" "Fundamentals in History;" "History as a Factor in Secondary Education;" and the "Educational Value of History;" "The Place of Modern Foreign Languages in Secondary Education," etc. If the questions above need to be answered for the good of the school, intending teachers have need of a training that shall fit them for wise answers. What with our groping and experimenting, sometimes succeeding, sometimes failing, we should see to it that those who succeed us as preceptors and instructors of the youth to come shall be equipped for fewer failures and a surer foresight.

V. But whatever the plea here means, or does not mean, there should be little difference of opinion among us upon the statement that a study of the history and the theory alone of secondary education, will not make one a teacher; any more than a study of the contributing sciences alone will be adequate to the training of physicians, or a study of social and property rights would be sufficient for the lawyer. The teacher has a right to his practice training as has the doctor to his clinic or the lawyer to his moot court; and the secondary teacher not less than the mistress of the grades. The colleges and the universities, and superior normal schools of the country, must accept the charge of certificating from their halls for such positions those only who have:

(1) An abundant scholarship, from two to four years in advance of the academic work they undertake.

(2) A sympathetic, but critical and philosophical mastery of the current educational doctrine. And

(3) An assured resourcefulness and effectiveness before a class, that gives promise of their being able really to help, in a large way, not hinder the progress of their students.

THE PROFESSIONAL TRAINING OF HIGH SCHOOL TEACHERS.

BY PRINCIPAL A. J. VOLLAND, GRAND RAPIDS.

At a recent meeting, the State Council of Superintendents of New York favored a resolution urging the passage of a law which shall prevent the appointment, in that state, after May 1, 1899, of teachers in high schools who are not graduates of colleges or universities approved by the Regents of the University of New York. And the following significant requirement was added: "That all such applicants shall have had at least one year's study in a recognized school of pedagogy or two years' teaching experience in high schools or three in elementary grades." Here, then, are distinctly recognized two qualifications for the high school teacher, namely, scholarship and pedagogical training.

It seems unnecessary to discuss the almost axiomatic statement that no teacher should be employed in a high school who is not a graduate of the literary department of a college of repute. And the statement is just as true whether the high school prepares for college or not. Those who are seeking an education in our secondary schools should have the benefit of the most competent teacher, regardless of whether that school is the last of their student life or is but the opening door to the more advanced life of a college. A broad scholarship gained from years at a college is an essential characteristic of such a competent teacher. And this scholarship should be broad, not narrowed by specialization in the early years of college work. The college student should widen his horizon in language, history, mathematics and science, should come in touch with the world of knowledge. Whatever special line of work our student is intending to pursue in after years as a teacher, he must be able to draw his illustrations freely, intelligently, from all life, for in the high school, he will not be teaching specialists. As a teacher, he will have before him a wide range of receptivity and of adaptability in the many young minds in his classes and unless his illustrations are drawn from all life and accomplishment, his efforts will be halting and unsuccessful. Language, science, mathematics and history are all handmaids to the specialist and to disdain their help, to pretend to despise them is but to prove one's own narrowness and to dwarf one's teaching capacity. I have known several complete failures among high school teachers because of this lack of breadth of horizon. These teachers failed to appreciate that their special line of work was connected with the different work of other teachers. And yet, I would not exalt knowledge too high, for wisdom is higher still. Wisdom is common sense, and without common sense all our acquired knowledge is but a tinkling cymbal. But with common sense, the educated man is well equipped for even the profession of teaching, though he is better equipped if he has a knowledge of the laws of the mind and of methods of teaching, and also has the ability to apply these methods intelligently and fruitfully.

This leads us then to the pedagogical side of the topic. Those New York superintendents emphasized the necessity for technical training in the high school teacher and said it could be gained in two ways, one by attending a re-

cognized school of pedagogy, the other by actual teaching experience either in high schools or in elementary grades.

A teacher untrained in his profession is as much of an absurdity as an untrained doctor and is capable of even as much mischief. Permit me to show from some experience in high school work in what important ways a college-bred man makes mistakes in teaching when he is not acquainted with psychologic and pedagogic truths. First: The high school teacher just from college will be likely to use college methods in his work, he will instruct rather than teach. Second: In his ignorance of the psychologic truth that the mind grows by its self-activity, our untrained teacher thinks his pupils know much because he has told them much. The third mistake naturally follows in that he has deprived his pupils of the right of discovery, deprived them of that incentive for further work. "Eureka!" the philosopher cried, and the joy of discovery is the right of every student. Fourth: His language, when he should talk with accuracy, clearness, and concreteness, is not adapted to the mentality of his pupils. He talks over their heads both in respect to the content of the words he uses and the fitness of his illustrations. Fifth: The details of attention on the part of his pupils, their order and deportment, escape him. These points may be largely overlooked in college but are not wisely so even in a large high school. Sixth: Our inexperienced teacher with no training in methods blunders lamentably in his presentation of subjects. He has no method of teaching, no methods of attack, naturally belonging to the subject in hand. He has not learned *what* is to be done as a teacher, *why* it is to be done and *how* it is to be done. This must mean a blundering, aimless recitation. He does not know how the mind acts and what is the best way of presenting objects of knowledge so as to lead to their comprehension in the easiest and yet most valuable manner. And once more, he does not know the educational value of the subjects he is to teach, does not know for instance, the purpose to be aimed at in the study of geometry or history or language.

Many other illustrations of pedagogical mistakes made by college graduates not professionally trained, might be given, but here are enough to show the need in a high school teacher of some pedagogic training in addition to the knowledge qualifications first discussed. Without a comprehension of the principles on which good teaching is based, the teacher becomes either a mere imitator or a teacher without definite purposes and well-considered means for accomplishing these purposes. Common sense leads many teachers to teach correctly,—common sense instructed by experience. But there are many left whom the work in a pedagogical school would benefit. A year in such a school concentrates the truths of many lives and experiences, changes his mental attitude so that he no longer considers knowledge from the point of view of the student merely but also from that of the teacher. And it seems to me that the theory of the science of education should be accompanied by the practice of the art of education. The man who is learning to teach will learn most by teaching under intelligent supervision.

Concluding, I would say that in my opinion, the professional qualifications of high school teachers should be: First, The general or broad scholarship gained in a college literary course; second, The specialization in such work as they desire to emphasize; third, An intelligent acquaintance with psychologic knowledge derived from history, philosophy and experience; fourth, A fund of tested methods based on psychology intelligently formulated from experience under supervision.

A young person so equipped and strengthened by common sense, tact and sympathy will succeed as a teacher in any school, and will be well qualified for the work of a high school teacher.

COMMERCIAL COURSES IN THE HIGH SCHOOL.

[The following courses of study for high school commercial departments or commercial high schools were submitted to the club at the Friday afternoon session as bases for discussion.]

I.

PREPARED BY DURAND W. SPRINGER, B. S., DIRECTOR COMMERCIAL DEPARTMENT, HIGH SCHOOL, ANN ARBOR.

FIRST YEAR.	FIRST SEMESTER.		
	German, Spanish or French,	5	
	Algebra,	5	
	U. S. History,	5	
	English,	**5**	
	SECOND SEMESTER.		
	German, Spanish or French,	5	
	Commercial Arithmetic,	5	
	Modern History,	5	
	Correspondence and Penmanship,	**5**	
SECOND YEAR.	FIRST SEMESTER.		
	German, Spanish or French,	5	
	Algebra,	5	
	Physical, Commercial and Industrial Geography,	5	
	Freehand and Instrumental Drawing,	**3**	
	English,	**2**	
	SECOND SEMESTER.		
	German, Spanish or French,	5	
	Bookkeeping,	5	
	Botany or Biology,	5	
	Typewriting,	**3**	
	English,	**2**	
THIRD YEAR.	FIRST SEMESTER.		
	German, Spanish or French,	4	
	Accounting,	4	
	Civil Government,	5	
	Chemistry,	4	
	English,	**3**	
	SECOND SEMESTER.		
	German, Spanish or French,	4	
	Office Work, and Customs and Methods of Business,	4	
	Com'l Law, and Nat'l and Foreign Com'l Legislation,	5	
	Industrial Chemistry,	4	
	English,	**3**	
FOURTH YEAR.	FIRST SEMESTER.		
	German, Spanish or French,	4	
	Physics,	4	
	History of Commerce and Industries,	4	
	Geometry,	5	
	American Literature,	**3**	
	SECOND SEMESTER.		
	German, Spanish or French,	4	
	Physics,	4	
	Economics,	4	
	Study of Products and Fabrics,	4	
	English Literature,	**5**	

REMARKS.—1. The above outline presupposes a study of Business Forms, and enough of Bookkeeping to enable one to keep a private cash account, in the eighth grade.

2. The figures to the right indicate the number of recitation periods per week.

3. Black-faced figures indicate that the lessons should not require extended outside work.

4. Stenography may be substituted for any ten hours' work. No credit for the study of a foreign language should be given unless it has been pursued at least two years. If, therefore, stenography is substituted for one year of a language, but one foreign language can be taken.

5. Each student should be required to devote at least three hours a week to systematic physical development and one hour a week to acquiring the art of public speaking.

II.

PREPARED BY CARL C. MARSHALL, EDITOR OF *Learning by Doing*, BATTLE CREEK.

FIRST YEAR.

FIRST SEMESTER.

Writing (free arm)
Elementary Bookkeeping and Office Practice
English (Grammar Review with Business Correspondence) and Spelling
History of American Government and Politics

SECOND SEMESTER.

Commercial Arithmetic
Bookkeeping and Office Practice
English (Circular Letters, Business Announcements, with Proof Reading, Printing Office Requirements, etc.)
Elements of Business Law

THIRD YEAR.

FIRST SEMESTER.

English History
Elements of Algebra
Elementary Economics
German or Spanish

SECOND SEMESTER.

Economics
Elementary Geometry
Study of Products and Industries
Elementary Physics
Spanish or German

SECOND YEAR.

FIRST SEMESTER.

Stenography and Typewriting
Business Law
Government (Municipal and State)
Transportation and Commerce

SECOND SEMESTER.

Stenography and Typewriting
Corporations and Corporation Accounting
History of Commerce and Industries
Ethics as applied to Business and Commerce
Elements of Rhetoric, Preparation of Themes, etc.

FOURTH YEAR.

FIRST SEMESTER.

Inorganic Chemistry
American Literature
Industrial Drawing and Ornamentation
Spanish or German

SECOND SEMESTER.

Organic Chemistry with Biology
Banking and Finance and Advanced Accountancy
Sociology
Spanish or German

MANUAL TRAINING IN THE HIGH SCHOOL.

SECOND PART OF A PAPER READ BY SUPERINTENDENT DAVID MACKENZIE, MUSKEGON.

[The first part of the paper—a careful discussion of certain theoretical aspects of the question—is omitted for lack of space.—EDITOR.]

EQUIPMENT.—Although manual training is as essential a part of an elementary as of a secondary school curriculum, its introduction into the latter presents so few difficulties as compared with its introduction into the former, that the first year of the high school is, perhaps, best suited as a starting point from which the subject can be extended later, as conditions will permit, into the grades below and above this.

A complete manual training high school will have three departments, that

of the mechanic arts, that of the domestic arts, and that of drawing. The mechanic arts will require five shops,—the joinery, the pattern shop, the foundry, the smith and the machine shops. The domestic department will have a kitchen, a dining-room, a laundry, one or two sewing-rooms and a nursery. In the drawing department there will be separate rooms for freehand and mechanical drawing, and for modeling, or such other phases of the work as the course may include. In addition there will be a gymnasium for the boys and also for the girls, and the various store rooms, class rooms, and usual facilities required in a modern school building. In most communities, the expense of such a building and equipment makes its immediate realization an impossibility. But the absence of a special building is not a bar to the introduction of manual training into high schools. The ordinary class room will suffice for the plain sewing; a session room containing a floor space of 1,200 feet will serve for a kitchen, while a well-lighted basement room with a floor space of not less than 1,600 feet will meet the requirements for the joinery, or of 2,400 square feet where the joinery and the pattern shop are to be combined. A building having three such rooms for utilization, contains accommodations for two years of manual training in domestic and mechanic lines. If more room than this is obtainable, it can, of course be used advantageously. But expensive buildings and lavish equipments, although characteristic of many manual training schools that owe their existence to private beneficence, are in no sense a necessity, and not even desirable educationally or industrially. Indeed, it seems to be the prevailing opinion among those familiar with the subject of manual training, that the matter of necessary space and equipment has been greatly exaggerated, and the wiser policy is to begin on a moderate and unpretentious basis and enlarge with the natural growth of the work. Furthermore, each school should build up an individuality of its own, determined largely by its particular conditions and environment. With each year, slight modifications may seem desirable, so that it is better to begin modestly, and equip gradually and according to the actual necessities of the school. In determining this matter, it is to be remembered that each work-room can be occupied by four sets of pupils each day, the manual training day including four periods of one and one-half hours each. The number of pupils to the class should not exceed twenty, although in first and second year work it may safely reach twenty-four, if necessary. Thus each workroom provides accommodations each day for eighty pupils.

A fair estimate of what may be regarded as a reasonable equipment for a high school beginning manual training under these conditions, would be:

First and second years:

1. Joinery (1st year joinery and carving).—

10 Double Benches at $15	$ 150 00	
20 sets Bench tools at $10	200 00	
20 sets Carving tools at $5	100 00	
Tool-room equipment	50 00	$ 500 00
Later it will be found advisable to provide for a more complete equipment which will include a circular saw, a planer, and a grindstone, which may be estimated at	$ 250 00	
Shafting, Belting, etc.	100 00	$ 350 00

2. The Pattern-shop (2nd year—turning and pattern-making).—

10 Lathes at $45	$ 450 00	
20 sets bench tools at $10	200 00	
Benches	100 00	
Tool-room	50 00	
Shafting, Belting, etc.	200 00	$1000 00
To this outfit should be added as soon as possible: a pattern-maker's lathe, band-saw, trimmer, and grindstone, estimated at		200 00
Total		$1200 00

3. The Kitchen.—The most important item in connection with the kitchen is the plumbing, but unless the conditions are unusual, the expense of fitting up and equipping need not exceed $500. This will include kitchen-desks with gas and water connections, a coal and a gas range, and individual and class dishes and utensils for classes of twenty pupils each.

4. The Sewing Room.—The expense of this room is very small, as sewing-tables and chairs constitute its chief articles of furniture. As the sewing advances into garment and dress-making, draughting tables and sewing machines must be added.

5. Drawing Rooms.—In most of our high schools there is always a more or less extended course in drawing or in art. In such schools, all that would be necessary would be its adjustment and correlation with the manual training. For the first year or two the drawing-room work might be carried on in the ordinary class or session rooms when special drawing rooms are not provided, but as soon as possible, specially fitted drawing rooms should be provided with suitable light, and with tables, easels, models, casts, and studies. Such an equipment may be estimated at from $250 to $500.

6. Lavatories.—Unless the building is a modern one, with a large and convenient lavatory, provision will have to be made for at least one lavatory for the shop. Lavatories and lockers constitute an important item in a manual training school, both in respect to ease and successful administration. It is desirable that each shop and work-room have its own lavatory and lockers, or that at least a separate lavatory be provided for every two shops; but as this is an item pertaining rather to the building than to the manual training equipment, and as it offers such a wide margin in style and construction, it is difficult to give an estimate of its cost. Perhaps $500 may be taken as an average estimate of the cost of a lavatory containing twenty basins and one hundred lockers.

7. Power.—The question of power will be determined largely by local conditions and individual preferences, but does not require consideration until the school is ready for the lathes. In our own school we have adopted electric power, and for the two wood-working shops have a 15-horse-power motor costing, complete, about $500.

Although these suggestions and estimates are given on the supposition that provision is to be made for but two years work, it will not be amiss to add estimates for the shop equipment for third and fourth years.

Third-year Shops:

1. Foundry—			
Cupola, core-oven, brass furnace, ladles, crucibles, etc.	$300 00		
Foundry tools, scale, etc.	150 00		
Benches	100 00	—$	550 00
2. Smith-shop—			
20 Forges and connections	300 00		
Fan, blower and connections	150 00		
Installation	150 00		
Tools	500 00	—$	1100 00
3. Motors for the above shops (complete)			400 00
Total			$2050 00

Fourth-year Machine Shop:

Ten lathes at $200	$2000 00		
Planer, shaper, drill and milling machine and installation	1000 00		
Tools, benches	500 00	—$	3500 00

THE CURRICULUM.—The lack of time and the difficulty of adding to an already crowded curriculum are, next to cost, probably the chief deterrent factors to the introduction of manual training in our high schools. But, as has been shown, manual training is not necessarily unreasonably expensive, and will in this respect compare favorably with the equipment of scientific laboratories, which are a part nowadays of even the smaller high schools. It will be found, too, on trial that actually, as well as theoretically, handwork, although adding somewhat to the length of a pupil's hours per week, easily compensates for this by contributing in a marked degree to his mental power and capacity for his academic studies. In the typical manual training school the time given to hand-work and to academic class work is the same, but this proportion will not be found suited to the average high school pupil. In Muskegon, where manual training has been tried for two years, pupils having special aptitudes for industrial work divide their school-day nearly equally between manual and academic work; while others, whether in high school or in college preparatory courses, devote only about one-fourth of their school-day to manual work. Whether or not this proportion will be continued throughout the entire four-year course, will be determined by results as we shall see them. Of a total of four and one-half hours a week given to the manual work by academic pupils, one and one-half hours are spent in two lessons in the drawing rooms and three hours in two lessons in the shops or work-rooms.

COST OF MATERIAL AND OF MAINTENANCE.—The cost of the material used by pupils is very small under economic management and is paid for by the pupils themselves by materials fees. Our aim is to make the fees charged just balance our expenditures for materials. The fees charged at present, which is the only expense connected with attendance at the school, are, for resident pupils:

1. *Mechanic Arts Department.*
   - *a.* Mechanical courses (one year, 5 lessons per week), each per year ..... $ 50
   - *b.* Academic courses (one year, 2 lessons per week), each per year 25

2. *Domestic Department.*

a.	Sewing and dressmaking, all courses each per year.....	25
b.	Cookery:	
	(1) Domestic courses (2 lessons per week), each per year.	2 00
	(2) Academic courses (1 lesson per week), each per year..	1 00
	(3) Housekeepers' class (15 lessons).....	5 00
c.	Laundry (when a separate course).....	25

3. *Drawing Department.*

All courses (1 year) each..... 25

COST OF INSTRUCTION.—Salaries will average higher here than in the high school, as the demand for thoroughly successful teachers in both the mechanic and the domestic arts exceeds the supply. In considering this question, it should be remembered also, that most of this work, like laboratory work in a high school, requires vacant periods during the day for preparation so that a teacher cannot always conduct the full number of four classes a day, if normal manual training periods are in vogue. Salaries for the different departments may be estimated at $800 to $1,200 for the mechanic arts, $700 to $1,000 for the domestic arts and science, and $700 to $1,000 for drawing. In our own school which has an enrollment of over 500, with three heads of departments and four assistants, the salary roll is about $650 per month.

INSTRUCTORS.—The promised results of manual training are not dependent upon or commensurate with an expensive plant or lavish equipment but the personality and character of the teachers. For whether manual training will be simply one more time-consuming subject in an already crowded curriculum or whether it will be a unifying element in the course of study contributing to the fullest development of the intellect, the sensibilities and the will, and to the realization of the spiritual ideal, will depend upon the attitude of the teacher toward his work. A mere workman or even a clever artisan, however skillful in the use of tools, ean never secure higher than economic and industrial results. Nor is the situation always much improved by the employment of graduates of technical and professional schools; for too often their teaching is only a repetition of the erroneous teaching of the schools, in which formal instruction takes the place of self-training and development. Their pupils may attain surprising technical skili and intellectual and aesthetic appreciation, but they will not gain in self-direction, in human interest or in spiritual insight. To technical knowledge and skill must be added a study of pedagogics, and above all an insight into and sympathy with the ethical and spiritual, as well as educational value and aim of manual training, which will elevate and transform manual labor in the home and in the shop from drudgery to pleasurable activity, and make of the servant and of the laboring man profitable and progressive factors in the industrial and social world.

PRINCIPALS' ROUND TABLE.

MARKING SYSTEMS AND GRADES OF DIPLOMAS.

PRINCIPAL J. H. HARRIS, Bay City:—Four systems of marking are in vogue: (1) The numerical system; (2) the word system—excellent, good, fair, poor, etc.; (3) the letter system—A, B, C, D, etc.; (4) the passing or open system, where pupils are marked simply *passed* or *not-passed*. But since the last three systems reduce themselves ultimately to a numerical judgment

in a more or less concious degree, the preference for one or another must rest on the question of the relative value of what may be styled the open *versus* the close system of grading, *i. e.* systems 1–3 *versus* system 4. Since the fundamental and original function of the marking system is to give outward and visible expression to a subjective judgment of the mental attainments and possibilities of a pupil, the open system is undoubtedly the sounder and more rational, for it is founded upon a basis which will last through life, whereas the close systems are artificial and temporary. But although the original purpose of the marking system is to estimate the pupil's powers, there are certain legitimate concomitants of it too important to be overlooked. These are the stimulation of friendly rivalry, the improvement of the general tone of scholarship, and especially the cultivation of what may be termed school public opinion, *i. e.*, a feeling of pride before one's classmates in successful and creditable performance. These objects are secured by the artificial stimulus of the close system; they are not directly fostered by the open system. The conclusion may be drawn that where the educational and moral tone of the community is of a sufficiently advanced character to rest on the broader and more logical grounds, where the children are from progressive and cultured homes where high ideas prevail, the simple feelings of pride and shame, admiration and respect of schoolmates, and the like, will be found to be adequate motives, and the mere record of *passed* or *not-passed*, or *conditioned* will be found to satisfy all the ends for which the marking system exists. But where the community has not reached a high stage of intelligence, where low ideas prevail in both the home and the community, the artificial stimulus becomes necessary, and the close system will meet certain ends which cannot be met in any other way. In most schools the conditions are not yet ripe for the simplest and most rational method of marking. For the present, therefore, teachers must gradually work toward the second and third methods, which are in the nature of compromises and stepping-stones.

RHETORICAL EXERCISES.

PRINCIPAL W. D. BAKER, Battle Creek:—There should be some field wherein the pupil of special capacity for public speaking may exercise his talent. This already exists in the form of rhetorical exercises in schools, and in local, district and state oratorical contests. The work in this field is at present being creditably done and arouses a great deal of interest.

There should also be a strong effort made on the part of teachers to remove the difficulty that many pupils experience in fluently and audibly expressing themselves. This matter is not receiving sufficient attention. The training needed is doubtless best secured, not by recitations of set pieces but by short talks on topics of current interest and by debates. Superintendents and principals of small high schools can do the work by resolving their schools into literary societies on a Friday afternoon. In the larger schools, the problem may be solved by securing co-operation of assistant teachers or by organizing into societies those who are especially interested in this line of work.

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